

10/581495

SEQUENCE LISTING

<110> HOKKAIDO TECHNOLOGY LICENSING OFFICE CO., LTD

<120> Highly safe smallpox vaccine virus and vaccinia virus vector

<130> PH-1947-PCT

<140>

<141>

<160> 13

<170> PatentIn Ver. 2.1

<210> 1

<211> 197

<212> DNA

<213> Vaccinia virus

<400> 1

gtctgtgaaa cagataaatg gaaatacgaa aatccatgca agaaaatgtc cacagttct 60
gattatgtct ctgaattata tgataagcca ttatacgaag tgaattccac catgacacta 120
agttgcaacg gcgaaacaaa atatttcgt tgcgaagaaa aaaatggaaa tacttcttgg 180
aatgatactg ttacgtg 197

<210> 2

<211> 317

<212> PRT

<213> Vaccinia virus

<400> 2

Met Lys Thr Ile Ser Val Val Thr Leu Leu Cys Val Leu Pro Ala Val
1 5 10 15

Val Tyr Ser Thr Cys Thr Val Pro Thr Met Asn Asn Ala Lys Leu Thr
20 25 30

Ser Thr Glu Thr Ser Phe Asn Asp Lys Gln Lys Val Thr Phe Thr Cys
35 40 45

Asp Gln Gly Tyr His Ser Leu Asp Pro Asn Ala Val Cys Glu Thr Asp
50 55 60

Lys Trp Lys Tyr Glu Asn Pro Cys Lys Lys Met Cys Thr Val Ser Asp
65 70 75 80

Tyr Val Ser Glu Leu Tyr Asp Lys Pro Leu Tyr Glu Val Asn Ser Thr
85 90 95

Met Thr Leu Ser Cys Asn Gly Glu Thr Lys Tyr Phe Arg Cys Glu Glu
100 105 110

Lys Asn Gly Asn Thr Ser Trp Asn Asp Thr Val Thr Cys Pro Asn Ala
115 120 125

Glu Cys Gln Pro Leu Gln Leu Glu His Gly Ser Cys Gln Pro Val Lys

130

135

140

Glu Lys Tyr Ser Phe Gly Glu Tyr Met Thr Ile Asn Cys Asp Val Gly

145

150

155

160

Tyr Glu Val Ile Gly Ala Ser Tyr Ile Ser Cys Thr Ala Asn Ser Trp

165

170

175

Asn Val Ile Pro Ser Cys Gln Gln Lys Cys Asp Met Pro Ser Leu Ser

180

185

190

Asn Gly Leu Ile Ser Gly Ser Thr Phe Ser Ile Gly Gly Val Ile His

195

200

205

Leu Ser Cys Lys Ser Gly Phe Thr Leu Thr Gly Ser Pro Ser Ser Thr

210

215

220

Cys Ile Asp Gly Lys Trp Asn Pro Ile Leu Pro Thr Cys Val Arg Ser

225

230

235

240

Asn Glu Lys Phe Asp Pro Val Asp Asp Gly Pro Asp Asp Glu Thr Asp

245

250

255

Leu Ser Lys Leu Ser Lys Asp Val Val Gln Tyr Glu Gln Glu Ile Glu

260

265

270

Ser Leu Glu Ala Thr Tyr His Ile Ile Ile Val Ala Leu Thr Ile Met

275

280

285

Gly Val Ile Phe Leu Ile Ser Val Ile Val Leu Val Cys Ser Cys Asp

290

295

300

Lys Asn Asn Asp Gln Tyr Lys Phe His Lys Leu Leu Pro

305

310

315

<210> 3

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

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<210> 4

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<212> DNA

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25

<210> 5
<211> 22
<212> DNA
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<210> 6
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<210> 7
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<210> 9

<211> 21

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<210> 10

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<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

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<210> 11

<211> 24

<212> DNA

<213> Artificial Sequence

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<210> 12

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic DNA

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tcaatgataa gttgcttcta acga

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<210> 13

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<212> DNA

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<223> Description of Artificial Sequence: Synthetic DNA

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gatccgaaga atgatatccc

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